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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/550,769   | 09/27/2005  | Mitchell Joe Dodson  | 1557-4 PCT/US/RCE   | 1779             |
| 23869 7590 09/18/2009<br>HOFFMANN & BARON, LLP<br>6900 JERICHO TURNPIKE<br>SYOSSET, NY 11791 |             |                      |                     |                  |
| EXAMINER   |             |                      |                     |                  |
| KIM, CHRISTOPHER S   |             |                      |                     |                  |
| ART UNIT   |             | PAPER NUMBER         |                     |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/550,769

**Applicant(s)**

DODSON, MITCHELL JOE

**Examiner**

Christopher S. Kim

**Art Unit**

3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 5-12, 14-22 and 25 is/are pending in the application.
- 4a) Of the above claim(s) 12 and 14-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-11 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. The response filed June 18, 2009 is acknowledged.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Election/Restrictions***

3. Applicant elected with traverse Group I in the reply filed on March 26, 2008.  
The requirement was made FINAL in the Office action mailed on April 9, 2008.
4. Claims 12, 14-22 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on March 26, 2008.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 5-11 and 25 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for two pins wherein each pin terminates in an end face and each pin is positioned at each end of the head, does not reasonably

provide enablement for one pin terminating in an end face being positioned at each end of the head. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims. The specification discloses, on page 6, lines 24-27, that pipe 15 accommodates a pair of cylindrical pins 21, 22 where each pin terminates in a planar face 23.

7. Claims 5-11 and 25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 10 recites the limitation "...to produce a flat spray pattern which is substantially parallel to the head..." in lines 6-7.

Although the specification discloses, on page 6, lines 3, "an adjustable flat jet nozzle," it fails to teach,

the head pipe having two ends and having an internal curvature that defines two deflectors that converge towards the aperture to produce a flat spray pattern which is substantially parallel to the head.

Note that "substantially parallel to the head" does not require that the spray pattern be parallel to the horizontal plane because the recitation "parallel to the head" does not specify any specific axis or plane of the head. Even if it requires a horizontal flat spray pattern, the specification teaches a circular outlet aperture 20 (or other shapes) on page 8, lined 1-3. The width of outlet aperture 20 is adjusted by the face 23 of pins 21, 22.

See figures 8a and 8b. The specification does not teach how such an opening would produce a flat horizontal spray pattern. In fact, it would appear that the opening shape of figure 8b would produce a vertical flat spray pattern.

8. Claims 5-11 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites the limitation "the pins" in line 2. There is insufficient antecedent basis for this limitation in the claim. Parent claim 10 merely requires "a pin," i.e., one pin.

Claim 9 recites the limitation "a pin" in line 2. It appears to be a double inclusion of the "pin" recited in claim 10 and/or the "pins" recited in claim 6.

Claim 9 recites the limitation "a shaft" in line 5. It appears to be a double inclusion of the "threaded shaft" recited in line 2.

Claim 11 recites the limitation "the pins" in line 1. There is insufficient antecedent basis for this limitation in the claim. Parent claim 10 merely requires "a pin," i.e., one pin.

#### ***Claim Rejections - 35 USC § 102***

9. Claims 5-7, 10, 11 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Higgins (816,470).

Higgins discloses a nozzle comprising:

a T-piece having:

a leg 5;

a head 9 having an internal curvature (internal curvature of 9 that accommodates plugs 10 and 11);

an aperture 7;

a pin 10, 11.

Claim 10 recites the limitation "...to produce a flat spray pattern which is substantially parallel to the head..." in lines 6-7. Higgins spray pattern is arguably flat and parallel to the end face of the pins of the head. The recitation "parallel to the head" does not specify any specific axis or plane of the head.

***Claim Rejections - 35 USC § 103***

10. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Higgins (816,470).

Higgins discloses the limitations of the claimed invention with the exception of the fluid passageway having the same diameter as the cross member. Although Higgins discloses, on page 1, lines 65-68, that the size of the nozzle at its discharge end is increased to accommodate said apertures 9 and plugs 10, 11 and insure structural strength, Higgins does not specifically disclose the internal diameters of the fluid passage and the cross member. It is knowledge within one of ordinary skill in the art to size fluid passages. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have sized the internal diameter of the fluid passage and cross member to maintain constant fluid volume.

***Response to Arguments***

11. Applicant's arguments filed June 18, 2009 have been fully considered but they are not persuasive.

Applicant argues that Higgins does not produce a flat spray pattern which is substantially parallel to the head. Note that "substantially parallel to the head" does not require that the spray pattern be parallel to the horizontal plane because the recitation "parallel to the head" does not specify any specific axis or plane of the head. Even if it requires a horizontal flat spray pattern, the specification teaches a circular outlet aperture 20 (or other shapes) on page 8, lined 1-3. The width of outlet aperture 20 is adjusted by the face 23 of pins 21, 22. See figures 8a and 8b. The specification does not teach how such an opening would produce a flat horizontal spray pattern. In fact, it would appear that the opening shape of figure 8b would produce a vertical flat spray pattern.

Applicant argues that the "pipe" does not provide an internal curvature which can act to deflect fuel in passage 7. In Higgins, figure 2, the top and bottom of the head provides an internal curvature.

Finally, the recitation "to produce a flat spray pattern which is substantially parallel to the head" is a functional recitation that merely requires the ability to so perform. MPEP 2114.

***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. Kim whose telephone number is (571) 272-4905. The examiner can normally be reached on Monday - Friday, 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571) 272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 3752

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher S. Kim/  
Primary Examiner, Art Unit 3752

CK